United States
Department of
Agriculture

Natural Resources
Conservation
Service

Oregon
Basin Outlook Report

March 1, 2010

(photo courtesy of Ted Day, USBR)

The above photo, taken during a fixed wing aerial snow survey on February 25th, is of the Kiger Gorge, which cuts through Steens Mountain in southeastern Oregon. While a few storms tracked across SE Oregon in February bringing much needed snowfall, most of the state remained drier and warmer than normal. Statewide, the snowpack is only 60% of average as of March 1, 2010.

Contents

General Outlook

March 1, 2010

SUMMARY

February was drier than normal across Oregon, causing further degradation of predicted summer water supply conditions. Water supply forecasts have declined in all basins across the state since the February report. Water users throughout Oregon can expect streamflows that are well below normal during the upcoming summer.

February precipitation for Oregon was well below normal throughout the state. Following a much warmer than normal January, February continued the warm trend that is typical during an El Nino climate pattern. As a result of warm temperatures and low precipitation, the snowpack declined in the low to mid elevations of the snow zone, while only modest increases were observed at upper elevations. Many SNOTEL sites in the mid to lower elevations of the snow zone are currently without snow, which is uncommon for March 1.

Looking ahead, March temperature and precipitation patterns will greatly influence peak snowpack levels and timing of the snowpack melt out across Oregon. If warm and dry conditions persist, this trend will likely further degrade summer water supply conditions in the state. While spring rains could bring some temporary relief in the form of greater or later spring runoff, it is not likely that summer streamflows will improve measurably this season.

The Water Availability Committee, led by the Oregon Water Resources Department, will be meeting during the week of March 8th to review water supply conditions in Oregon. At least one county will be requesting drought status. http://www.oregon.gov/OWRD/WR/drought.shtml

SNOWPACK

During an average year, Oregon SNOTEL sites have accumulated approximately 85-95% of their annual peak snow accumulation by March 1. With the typical snow accumulation period almost over, this winter has so far failed to deliver normal snowfall to the Pacific Northwest. As of March 1, the snowpack across Oregon was only 60 percent of average, as measured by 73 SNOTEL sites.

As of March 1, basin snowpack conditions in Oregon range from a low of 38 percent of average in the Willamette Basin to a high of 109 percent of average in the Owyhee and Malheur basins. Snow measurements for March 1 were recorded at 77 SNOTEL sites, 39 snow courses and 14 aerial markers across the state.

PRECIPITATION

February precipitation was significantly below average throughout Oregon. Monthly precipitation totals ranged from a low of 47 percent of average in Lake County to a high of 70 percent of average in the Harney basin.

Since the beginning of the water year on October 1, precipitation in Oregon has ranged from 67 percent of average in the Klamath basin to 86 percent of average in the Upper John Day basin. So far, precipitation deficits for the water year range from 10 to 15 inches in the Cascades and from 2 to 10 inches at eastern Oregon SNOTEL sites.

RESERVOIRS

March 1 storage at 25 major Oregon reservoirs analyzed in this publication was 62 percent of average. A total of 1,284,400 acre feet of water was stored as of March 1, representing 40 percent of useable capacity. Last year at this time, these same reservoirs stored 1,436,400 acre feet of water. Reservoir storage in many areas across Oregon is well below average for this time of year, increasing the potential for water shortages during the upcoming summer season.

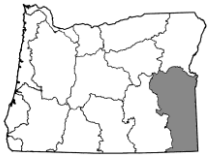
STREAMFLOW

Streamflow forecasts at most points in the state continue to decline as water supply conditions fail to improve. Water users throughout the state should expect well below normal streamflows this upcoming summer. A summary of streamflow forecasts for Oregon follows:

STREAM	PERIOD	PERCENT OF AVERAGE
Owyhee Reservoir Inflow	April-September	50
Grande Ronde R at La Grande	April-September	71
Umatilla R at Pendleton	April-September	67
Deschutes R at Benham Falls	April-September	73
MF Willamette R bl NF	April-September	69
Rogue R at Raygold	April-September	63
Upper Klamath Lake Inflow	April-September	61
Silvies R nr Burns	April-September	74

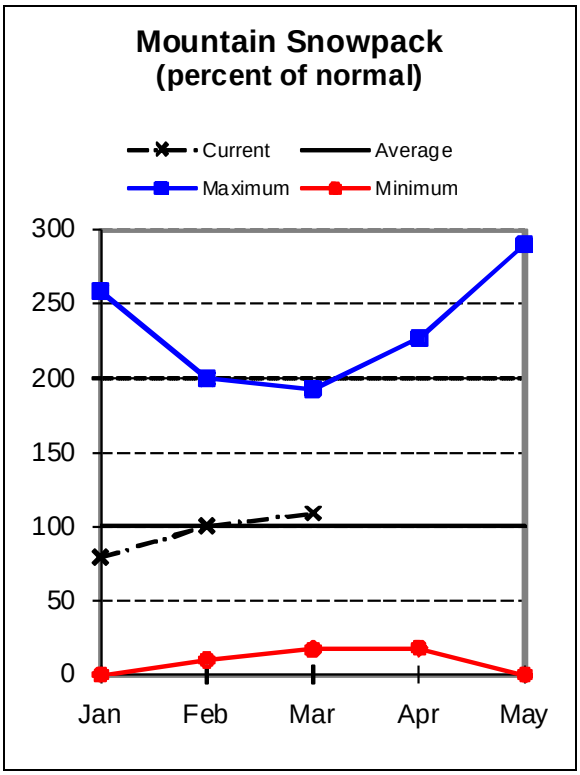
The forecasts in this bulletin are a result of coordinated activity between the Natural Resources Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

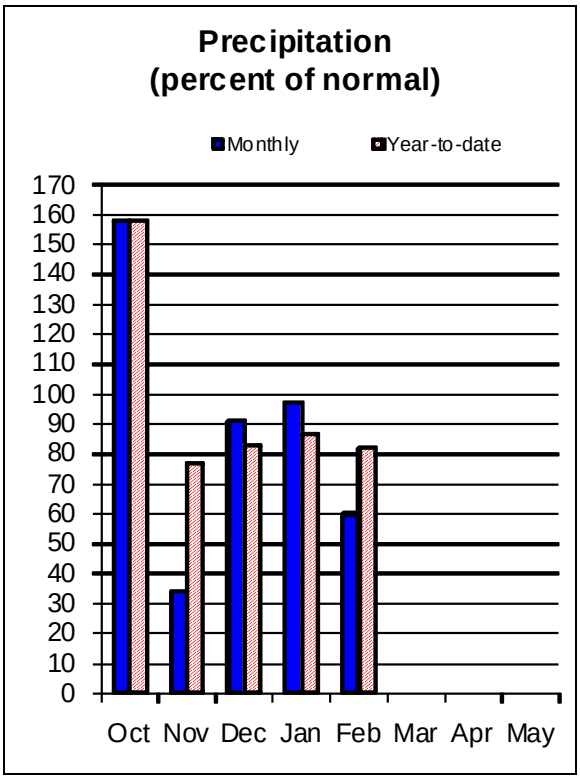
This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators. This report will be updated monthly, January through June.



Owyhee and Malheur Basins

March 1, 2010





Water Supply Outlook

February was warmer and drier than normal, which did not help to improve water supply conditions in the Owyhee and Malheur basins. February precipitation in the Owyhee and Malheur basins was 60 percent of average. Since the beginning of the water year, precipitation in the Owyhee and Malheur basins was 82 percent of average. The March 1 snowpack, as measured at 5 snow courses, 17 aerial markers and 10 SNOTEL sites, was 109 percent of average. The Owyhee and Malheur basin snowpack was the best in Oregon as of March 1.

March 1 storage at the four irrigation reservoirs in the Owyhee and Malheur basins was 42 percent of average, or 27 percent of capacity.

The April through September streamflow forecasts in the Owyhee and Malheur basins range from 50 percent of average for the Owyhee River below Owyhee Dam to 67 percent of average for the Malheur near Drewsey. Streamflow forecasts have declined somewhat since last month. Water users in the Owyhee and Malheur basins can expect streamflows that are greatly below average in the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
Ontario - (541) 889-7637
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

OWYHEE AND MALHEUR BASINS
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Malheur R nr Drewsey	MAR-JUL	36	61	81	74	104	144	110
	APR-SEP	17.9	36	51	67	69	101	76
NF Malheur R at Beulah	MAR-JUL	33	47	58	72	70	90	81
Owyhee R blw Owyhee Dam (2)	MAR-JUL	12.0	124	320	52	515	805	615
	MAR-SEP	19.0	122	325	50	530	825	645
	APR-SEP	17.0	79	215	50	350	550	430
Owyhee R nr Rome	MAR-JUL	135	215	280	48	355	475	580
	MAR-SEP	142	225	290	48	365	490	600
	APR-SEP	104	163	210	53	265	355	400

OWYHEE AND MALHEUR BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BEULAH RES	60.0	17.4	19.7	35.4
BULLY CREEK	30.0	14.9	11.5	17.5
OWYHEE	715.0	213.0	232.6	489.1
WARMSPRINGS	191.0	24.2	25.8	102.7

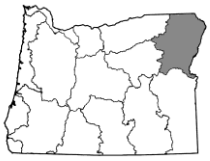
OWYHEE AND MALHEUR BASINS
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Owyhee	19	104	103
Upper Malheur	8	176	120
Jordan Creek	3	124	102
Bully Creek	3	210	166
Willow Creek	4	201	162

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

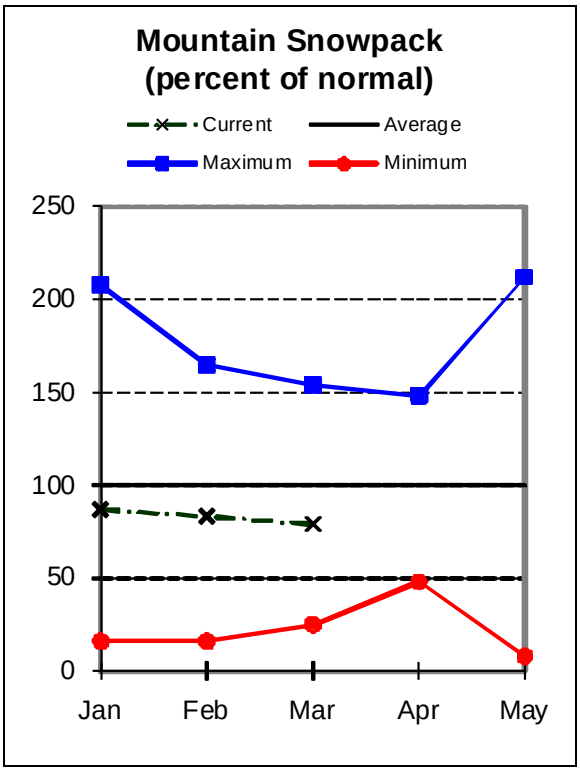
The average is computed for the 1971-2000 base period.

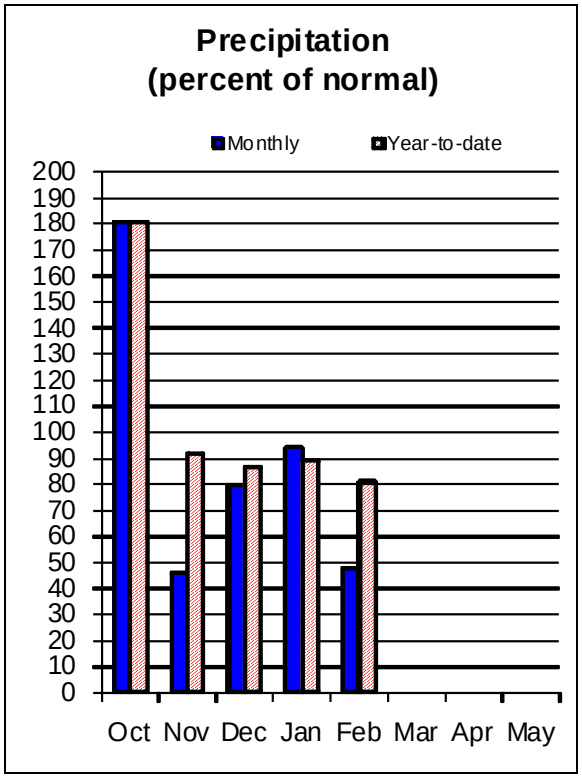
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.



Burnt, Powder, Grand Ronde, and Imnaha Basins

March 1, 2010





Water Supply Outlook

February brought higher than normal temperatures and lower than normal precipitation to the Burnt, Powder, Pine, Grande Ronde, and Imnaha basins. February precipitation in the basin was 48 percent of average. Since the beginning of water year 2010, basin wide precipitation was 81 percent of average. The March 1 snowpack, which was measured at 6 snow courses, 1 aerial marker and 15 SNOTEL sites, was 79 percent of average.

March 1 storage at Phillips Lake, Thief Valley and Unity reservoirs was 84 percent of average or 56 percent of capacity.

The April through September streamflow forecasts range from 64 percent of average for the Burnt River near Hereford, to 78 percent of average for Pine Creek near Oxbow. Elsewhere in the basin, the Grande Ronde River at LaGrande is forecasted to be 71 percent of average for the April through September period. Water supply forecasts have dropped a few percentage points from last month. Water users in the basin can expect streamflows that are well below normal in the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
Enterprise- (541) 426-4588; Baker City - (541) 523-7121; LaGrande - (541) 963-4178
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Bear Ck nr Wallowa	APR-SEP	29	40	47	72	54	65	65
Burnt R nr Hereford	MAR-JUL	18.2	26	33	65	40	52	51
	APR-SEP	11.6	18.9	25	64	32	44	39
Catherine Ck nr Union	APR-JUL	34	42	47	76	53	62	62
	APR-SEP	37	45	51	77	57	67	66
Deer Ck nr Sumpter	MAR-JUL	8.8	11.8	14.0	77	16.4	20	18.2
Grande Ronde R at La Grande	MAR-JUL	116	150	175	71	200	245	247
	APR-SEP	77	109	134	71	162	205	188
Grande Ronde R at Troy	MAR-JUL	750	1050	1190	75	1330	1630	1580
	APR-SEP	650	925	1050	77	1170	1450	1370
Imnaha R at Imnaha	APR-JUL	115	165	200	74	235	285	270
	APR-SEP	130	183	220	75	255	310	295
Lostine R nr Lostine	APR-JUL	67	79	87	78	96	110	112
	APR-SEP	71	84	93	77	103	118	121
Pine Ck nr Oxbow	MAR-JUL	85	124	150	80	176	215	188
	APR-JUL	62	93	115	78	137	168	148
	APR-SEP	65	98	120	78	142	175	154
Powder R nr Sumpter	MAR-JUL	32	42	49	70	57	70	70
	APR-JUL	24	33	40	69	47	59	58
	APR-SEP	26	35	42	71	50	62	59
Wolf Ck Reservoir Inflow (2)	MAR-JUN	9.2	12.1	14.0	86	15.9	18.8	16.2

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BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
PHILLIPS LAKE	73.5	40.7	37.8	43.8
THIEF VALLEY	17.4	13.7	13.7	17.3
UNITY	25.2	10.1	12.3	15.8
WALLOWA LAKE	37.5	13.0	15.5	18.8
WOLF CREEK	10.4	3.8	3.4	3.8

BURNT, POWDER, PINE, GRANDE RONDE AND IMNAHA BASINS
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Upper Grande Ronde	9	84	75
Wallowa	4	95	77
Imnaha	4	93	65
Powder	11	98	78
Burnt	5	141	108

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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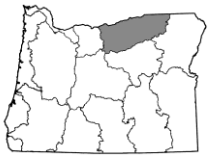
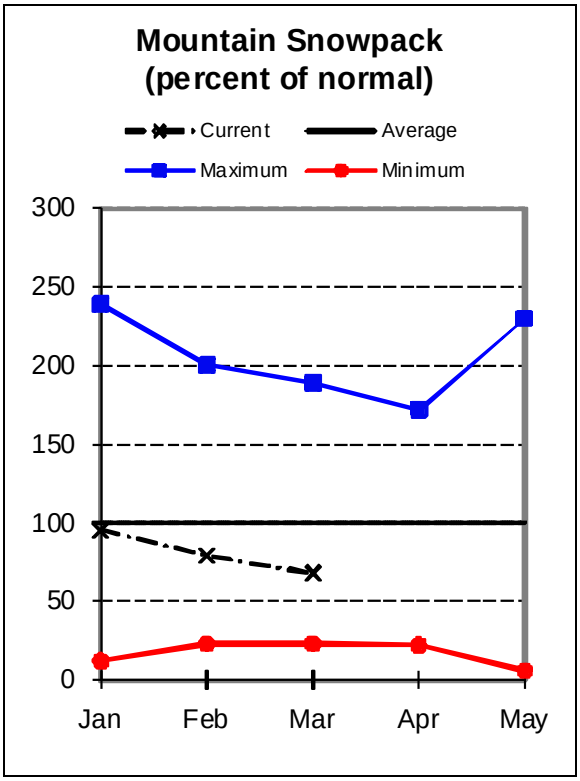
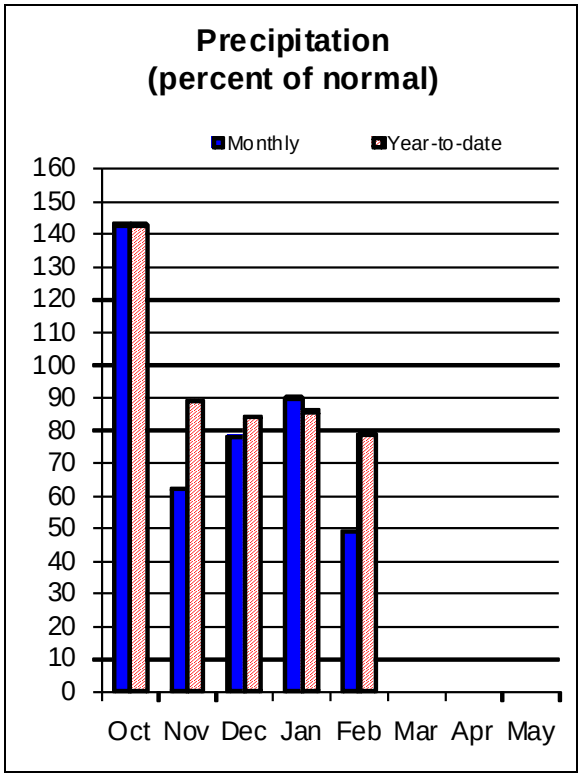


Umatilla, Walla Walla, Willow Rock, and Lower John Day Basins

March 1, 2010





Water Supply Outlook

Water supply conditions have deteriorated in the Umatilla, Walla Walla, Willow, Rock and Lower John Day basins since the February Basin Outlook Report. February precipitation in the basin was 49 percent of average. As of March 1, total precipitation for water year 2010 was 79 percent of average. The March 1 snowpack, as measured at 2 snow courses and 7 SNOTEL sites, was 68 percent of average.

March 1 storage at Cold Springs and MacKay reservoirs was 45 percent of average, or 27 percent of capacity.

Summer streamflow forecasts have dropped significantly in the basin since last month. April through September streamflow forecasts range from 67 percent of average for the Umatilla River at Pendleton, to 75 percent of average for Butter Creek near Pine City. Elsewhere in the basin, the South Fork Walla Walla River near Milton-Freewater is forecast to be 70 percent of average for the same period. Water users in the Umatilla, Walla Walla, Willow, Rock and Lower John Day basins can expect well below normal streamflow conditions for the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
Pendleton - (541) 278-8049; Heppner - (541) 676-5021; Condon - (541) 384-2671
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Butter Ck nr Pine City	MAR-JUL	4.7	8.6	11.2	75	13.8	17.7	15.0
	APR-SEP	2.7	5.6	7.6	75	9.6	12.5	10.2
McKay Ck nr Pilot Rock	APR-SEP	0.7	12.2	20	74	28	39	27
Rhea Ck nr Heppner	MAR-JUL	2.5	5.9	8.2	76	10.5	13.9	10.8
Umatilla R ab Meacham Ck nr Gibbon	APR-JUL	28	41	50	69	59	72	73
	MAR-SEP	50	65	75	71	85	100	106
	APR-SEP	32	45	54	68	63	76	79
Umatilla R at Pendleton	APR-JUL	49	80	100	67	120	151	149
	MAR-SEP	104	138	161	70	184	220	230
	APR-SEP	53	83	104	67	125	155	155
SF Walla Walla R nr Milton-Freewater	APR-JUL	28	34	38	70	42	48	54
	MAR-SEP	46	54	59	73	64	72	81
	APR-SEP	36	42	47	70	52	58	67
Willow Ck ab Willow Ck Lake nr Heppn	MAR-JUL	2.7	5.9	8.1	73	10.3	13.5	11.1
	APR-JUL	1.0	3.6	5.4	73	7.2	9.8	7.4

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COLD SPRINGS	50.0	14.6	16.7	29.5
MCKAY	73.8	19.0	36.0	44.6
WILLOW CREEK	1.8	1.2	0.4	---

UMATILLA, WALLA WALLA, WILLOW, ROCK AND LOWER JOHN DAY BASINS
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Walla Walla	3	74	69
Umatilla	7	76	69
McKay Creek	4	65	63

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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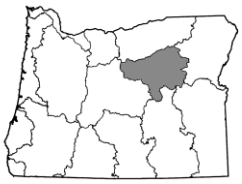
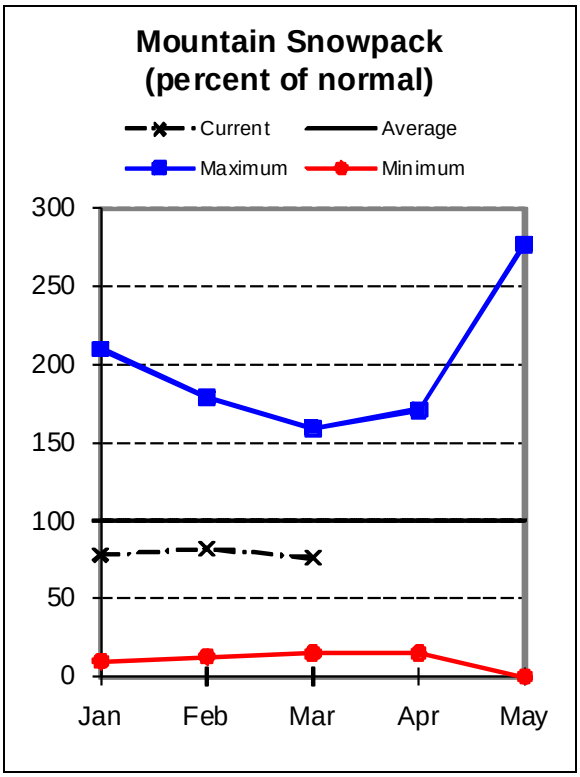
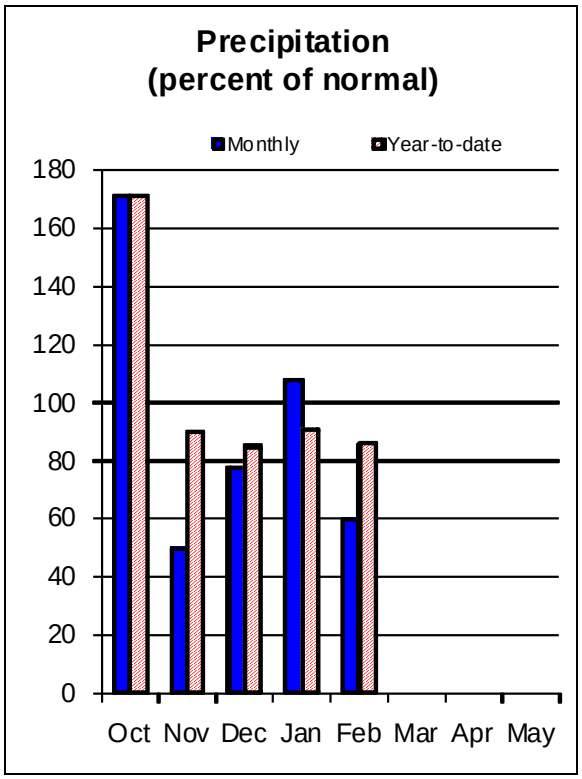


Upper John Day Basin

March 1, 2010





Water Supply Outlook

Since the February Basin Outlook Report, water supply conditions have declined somewhat in the Upper John Day basin. As of March 1, total precipitation for water year 2010 was 86 percent of average in the basin, the highest in the state. February precipitation was only 60 percent of average. On March 1, the snowpack in the basin, as measured at 1 snow course and 13 SNOTEL sites, was 76 percent of average.

Summer streamflow forecasts have dropped as much as 10 percentage points since the February Basin Outlook Report. April through September streamflow forecasts range from 67 percent of average for Mountain Creek near Mitchell, to 78 percent of average for Strawberry Creek near Prairie City. Elsewhere in the basin, the Middle Fork John Day River at Monument is forecast to be 73 percent of average for the same period. Water users in the Upper John Day basin can expect well below normal streamflows for the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
John Day - (541) 575-0135
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

UPPER JOHN DAY BASIN
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Camas Ck nr Ukiah	MAR-JUL	21	31	37	71	43	53	52
	APR-SEP	11.2	21	27	71	33	43	38
MF John Day R at Ritter	MAR-JUL	58	90	111	70	132	164	159
	APR-SEP	41	70	90	70	110	139	128
NF John Day R at Monument	MAR-JUL	335	480	575	73	670	815	790
	APR-SEP	235	360	450	73	540	665	615
Mountain Ck nr Mitchell	MAR-JUL	1.2	2.9	4.1	67	5.3	7.0	6.1
	APR-SEP	0.6	2.1	3.1	67	4.1	5.6	4.6
Strawberry Ck nr Prairie City	MAR-JUL	3.2	4.8	5.8	78	6.8	8.4	7.4
	APR-SEP	3.4	5.0	6.1	78	7.2	8.8	7.8

UPPER JOHN DAY BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

UPPER JOHN DAY BASIN
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
North Fork John Day	7	100	73
John Day above Kimberly	5	117	84

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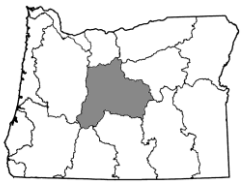
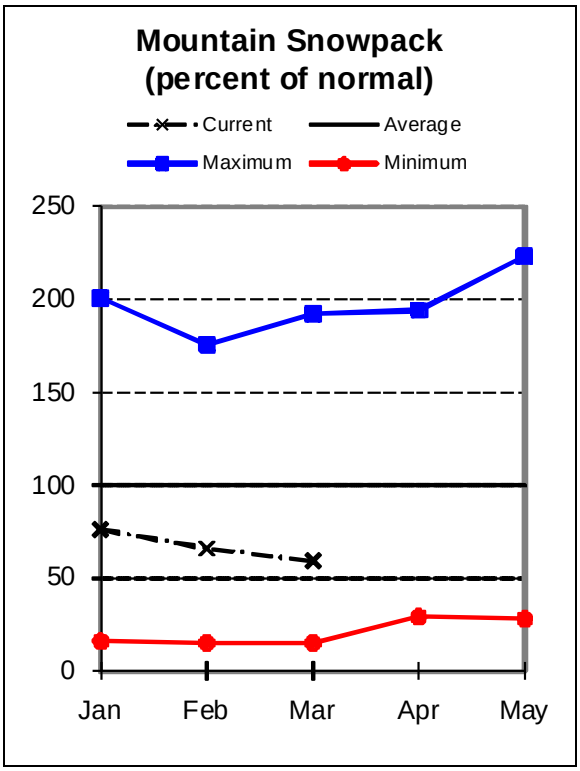
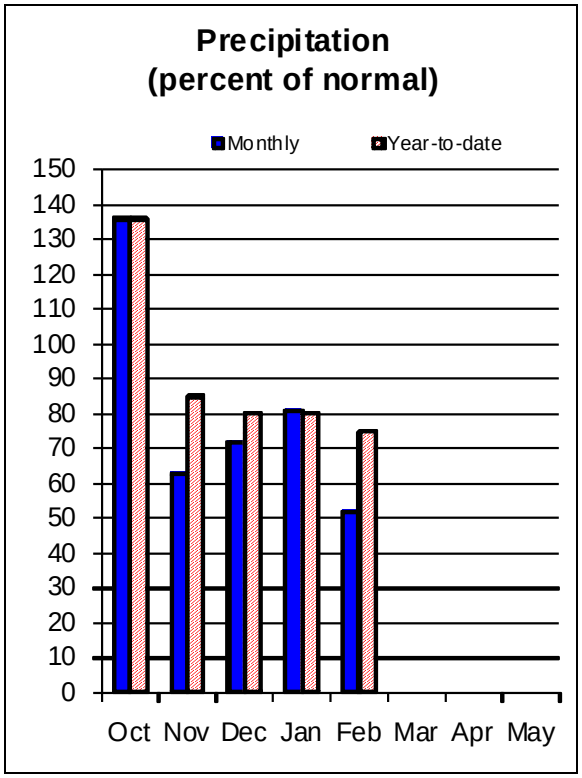


Upper Deschutes and Crooked Basins

March 1, 2010





Water Supply Outlook

February observations from the Upper Deschutes and Crooked River basins showed a month with below normal precipitation and above normal temperatures. Precipitation for the month of February was 52 percent of average. As of March 1, total precipitation for water year 2010 was 75 percent of average. On March 1, the snowpack in the Upper Deschutes and Crooked River basins was 59 percent of average. Measurements were taken at 3 snow courses and 14 SNOTEL sites.

March 1 storage at five irrigation reservoirs in the Upper Deschutes and Crooked River basins was 107 percent of average, or 79 percent of capacity.

Summer streamflow forecasts have declined somewhat from the February Basin Outlook Report. April through September streamflow forecasts range from 46 percent of average for Crescent Creek near Crescent, to 73 percent of average for the Deschutes River at Benham Falls near Bend. Elsewhere in the basin, the Ochoco Reservoir Inflow is forecast to be 53 percent of average for the April through September period. Water users in the Upper Deschutes and Crooked River basins can expect streamflows that are greatly below average during the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
Redmond (541) 923-4358
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

UPPER DESCHUTES AND CROOKED BASINS
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Crane Prairie Reservoir Inflow (2)	MAR-JUL	23	32	39	57	46	55	68
	APR-JUL	21	29	34	58	39	47	59
	MAR-SEP	39	50	58	57	66	77	102
	APR-SEP	36	46	53	57	60	70	93
Crescent Ck nr Crescent (2)	MAR-JUL	0.7	5.8	9.2	46	12.6	17.7	20
	APR-JUL	0.6	4.9	7.9	46	10.9	15.2	17.2
	MAR-SEP	2.2	7.4	11.0	46	14.6	19.8	24
	APR-SEP	2.2	6.6	9.6	46	12.6	17.0	21
Deschutes R at Benham Falls nr Bend	MAR-JUL	275	300	315	73	330	355	430
	APR-JUL	225	245	255	73	265	285	350
	MAR-SEP	390	420	440	73	460	490	605
	APR-SEP	345	370	385	73	400	425	525
Deschutes R bl Snow Ck nr La Pine	MAR-JUL	8.1	15.2	20	51	25	32	39
	APR-JUL	7.4	13.2	17.1	52	21	27	33
	MAR-SEP	20	28	34	52	40	48	65
	APR-SEP	18.0	25	30	51	35	42	59
Little Deschutes R nr La Pine (2)	MAR-JUL	24	36	44	51	52	64	87
	APR-JUL	19.8	29	36	51	43	52	71
	MAR-SEP	26	39	48	50	57	70	96
	APR-SEP	20	32	40	50	48	60	80
Ochoco Reservoir Inflow (2)	MAR-JUL	6.2	13.8	18.9	54	24	32	35
	APR-JUL	0.6	7.2	11.7	53	16.2	23	22
	MAR-SEP	6.1	13.7	18.9	54	24	32	35
	APR-SEP	0.6	7.2	11.7	53	16.2	23	22
Prineville Reservoir Inflow (2)	MAR-JUL	19.0	73	110	60	147	200	184
	APR-JUL	3.0	38	64	59	90	128	108
	MAR-SEP	18.0	74	111	60	148	205	185
	APR-SEP	3.0	37	64	59	91	130	109
Whychus Ck nr Sisters	MAR-JUL	22	25	27	70	29	32	39
	APR-JUL	20	23	25	69	27	30	36
	MAR-SEP	28	32	34	68	36	40	50
	APR-SEP	29	32	34	69	36	39	49

For more information contact your local Natural Resources Conservation Service Office:
Redmond (541) 923-4358
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

UPPER DESCHUTES AND CROOKED BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CRANE PRAIRIE	55.3	40.8	45.1	41.9
CRESCENT LAKE	86.9	67.0	63.8	52.3
OCHOCO	47.5	22.7	24.4	25.8
PRINEVILLE	153.0	102.6	94.9	102.7
WICKIUP	200.0	193.9	194.7	176.0

UPPER DESCHUTES AND CROOKED BASINS
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Crooked	3	102	77
Little Deschutes	4	79	71
Deschutes above Wickiup R	4	63	60
Tumalo and Squaw Creeks	5	75	64

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

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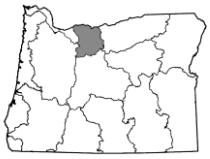
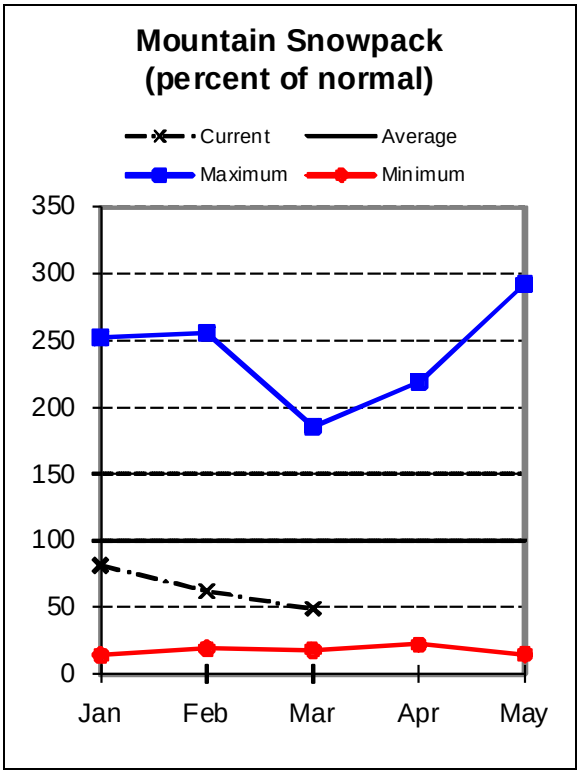
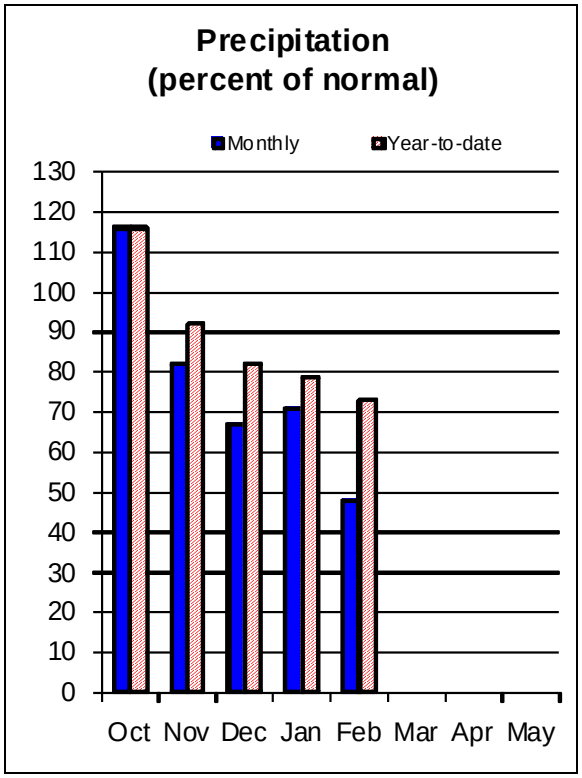


Hood, Mile Creeks, and Lower Deschutes Basins

March 1, 2010





Water Supply Outlook

February observations from the Hood, Mile Creeks and Lower Deschutes basins showed another month with below normal precipitation and above normal temperatures. February precipitation was 48 percent of average. As of March 1, total precipitation since the beginning of the water year was 73 percent of average. February temperatures were warmer than normal and some of the lower elevation SNOTEL sites actually lost snow as precipitation fell as rain. On March 1, the snowpack in the basin was 49 percent of average. Snow measurements were taken at 8 SNOTEL sites and 1 snow course.

The April through September streamflow for Hood River at Tucker Bridge is forecast to be 68 percent of average. Water users in the Hood, Mile Creeks and Lower Deschutes basin can expect greatly reduced streamflows during the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
The Dalles (541) 296-6178
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Hood R At Tucker Bridge	APR-JUL	100	132	154	68	176	210	228
	APR-SEP	125	160	184	68	210	245	271

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CLEAR LAKE (WASCO)	11.9	3.6	5.4	4.3

HOOD, MILE CREEKS AND LOWER DESCHUTES BASINS
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Hood River	7	63	61
Mile Creeks	2	81	75
White River	5	69	63

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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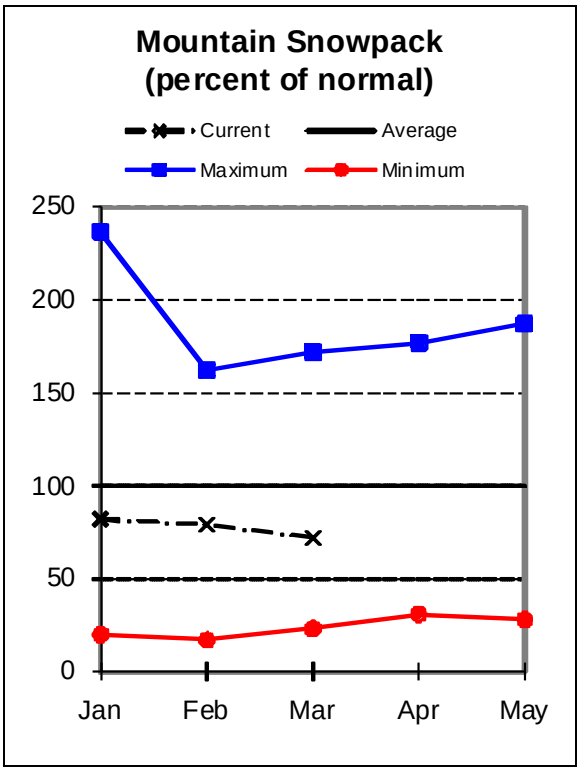
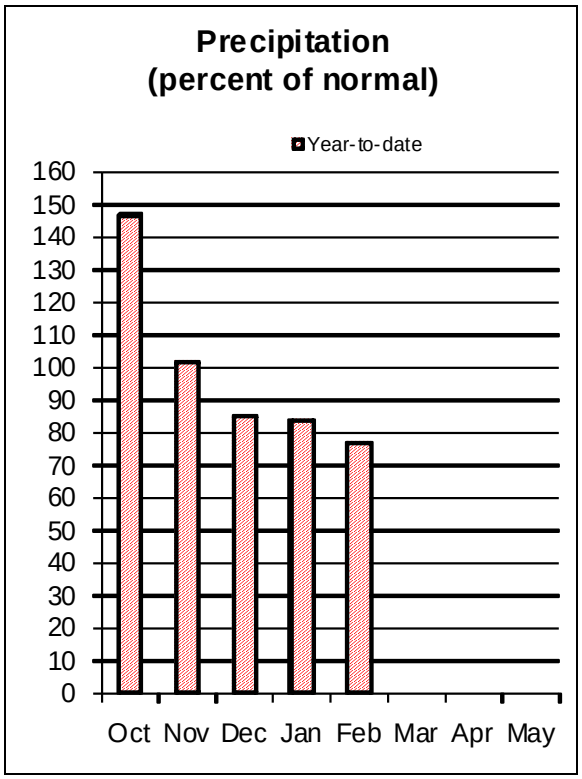
Lower Columbia Basin

March 1, 2010





Water Supply Outlook

On March 1, the snowpack in the Columbia basin above The Dalles was 72 percent of average, down 7 percentage points from last month. As with the rest of the region, a warmer and drier than normal winter has contributed to below average March 1 snow conditions.

Since the beginning of the water year, precipitation in the Columbia basin has been 77 percent of average. Locally, February precipitation in the Sandy basin was 50 percent of average.

The April through September streamflow forecast for the Columbia at The Dalles is 67 percent of average. This represents a 7 point drop from last month. For the Sandy near Marmot, the April through September streamflow forecast is 80 percent of average. Water users throughout the Columbia basin can expect greatly reduced supplies this coming summer.

For more information contact your local Natural Resources Conservation Service Office:
Oregon City - (503) 656-3499
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

LOWER COLUMBIA BASIN
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Columbia R at The Dalles (2)	APR-JUL	44600	51600	56400	67	61200	68200	84600
	APR-SEP	52000	60200	65800	67	71400	79600	98600
Sandy R nr Marmot	APR-JUL	178	220	250	80	280	320	313
	APR-SEP	215	260	290	80	320	365	363

LOWER COLUMBIA BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

LOWER COLUMBIA BASIN
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Sandy	7	46	50

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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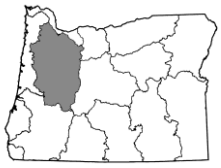
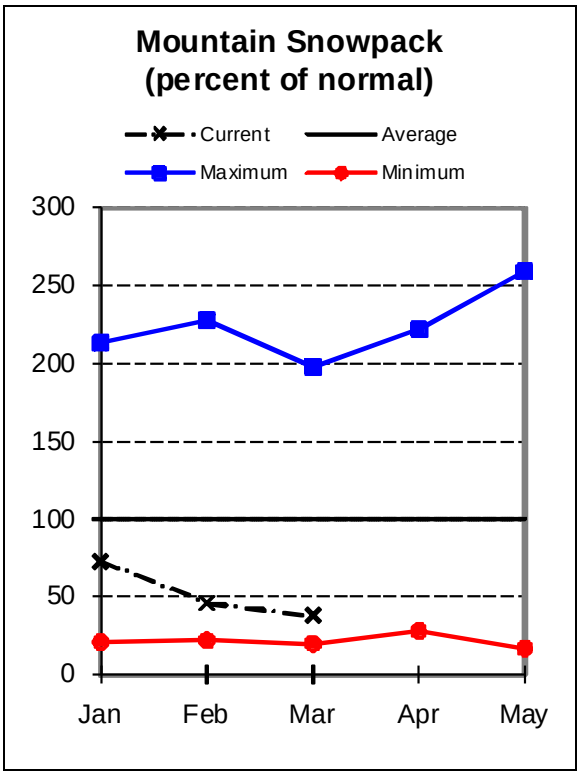
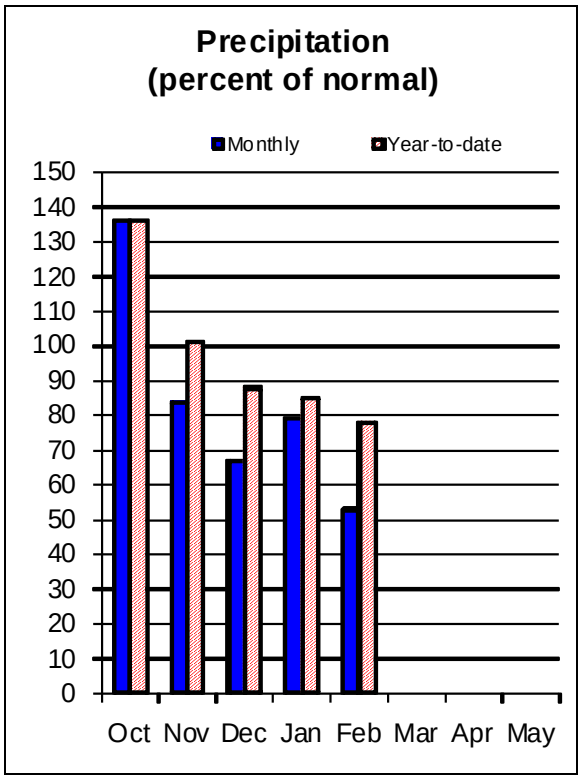


Willamette Basin

March 1, 2010





Water Supply Outlook

February precipitation in the Willamette basin was much lower than normal, and fell as rain rather than snow in the low to mid elevations of the snow zone. As of March 1, total precipitation for water year 2010 was 78 percent of average. On March 1, the snowpack in the Willamette basin was 38 percent of average, the lowest in the state. Snow measurements were taken at 2 snow courses and 20 SNOTEL sites.

The March 1 storage at Henry Hagg reservoir in the Willamette basin was 103 percent of average, or 88 percent of capacity.

The April through September streamflow forecasts for the Willamette basin range from 66 percent of average for the inflow to Green Peter Lake, to 81 percent of average for the Willamette River at Salem. Elsewhere in the basin, the McKenzie near Vida is forecast to be 77 percent of average.

Several Willamette basin streamflow forecasts have declined significantly since last month. Water users in the basin can expect well below normal water supplies this coming summer.

For more information contact your local Natural Resources Conservation Service Office:
Eugene - (541) 465-6436; Portland - (503) 231-2270; Tangent - (541) 967-5925; Oregon City - (503) 656-3499;
Hillsboro - (503) 648-3174; McMinnville - (503) 472-1474
Salem - (503) 399-5746; Dallas - (503) 623-5534
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

WILLAMETTE BASIN
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Blue Lake Inflow (1,2)	MAR-MAY	35	69	85	75	101	135	113
	APR-JUL	27	53	64	75	75	101	86
	APR-SEP	28	53	64	74	75	100	86
Clackamas R at Estacada	APR-JUL	320	405	465	73	525	610	640
	APR-SEP	395	485	545	73	605	695	748
Clackamas R ab Three Lynx (2)	APR-JUL	250	305	345	73	385	440	474
	APR-SEP	310	370	410	73	450	510	562
Cottage Grove Lake Inflow (1,2)	MAR-MAY	13.2	35	45	75	55	77	60
	APR-JUL	0.3	21	30	74	39	60	41
	APR-SEP	3.2	23	32	74	41	61	43
Cougar Lake Inflow (1,2)	MAR-MAY	81	131	153	72	175	225	212
	APR-JUL	87	126	143	70	160	199	204
	APR-SEP	105	143	161	70	179	215	230
Detroit Lake Inflow (1,2)	MAR-MAY	205	325	380	70	435	555	540
	APR-JUL	197	310	360	68	410	525	528
	APR-SEP	245	365	420	68	475	595	616
Dorena Lake Inflow (1,2)	MAR-MAY	51	107	133	73	159	215	182
	APR-JUL	16.0	70	94	72	118	172	131
	APR-SEP	6.0	62	88	72	114	170	122
Fall Creek Lake Inflow (1,2)	APR-JUL	21	57	74	70	91	127	106
	APR-SEP	12.0	57	78	70	99	144	112
Fern Ridge Lake Inflow (1,2)	MAR-MAY	21	58	75	70	92	129	107
	APR-JUL	5.0	23	34	70	45	71	49
	APR-SEP	5.0	23	35	70	47	72	50
Foster Lake Inflow (1,2)	MAR-MAY	360	430	460	75	490	560	613
	APR-JUL	283	339	365	75	391	447	490
	APR-SEP	312	366	390	74	414	468	527

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WILLAMETTE BASIN
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Green Peter Lake Inflow (1,2)	MAR-MAY	131	235	285	68	335	440	417
	APR-JUL	97	182	220	67	260	345	327
	APR-SEP	111	196	235	66	275	360	354
Hills Creek Reservoir Inflow (1,2)	MAR-MAY	86	168	205	71	240	325	288
	APR-JUL	95	166	199	72	230	305	277
	APR-SEP	122	196	230	72	265	340	320
Little North Santiam R nr Mehama (1)	APR-JUL	34	75	93	70	111	152	133
	APR-SEP	42	82	100	70	118	158	143
Lookout Point Lake Inflow (1,2)	MAR-MAY	255	460	555	73	650	855	759
	APR-JUL	250	440	525	72	610	800	726
	APR-SEP	305	505	595	72	685	885	828
McKenzie R bl Trail Bridge (2)	APR-JUL	148	171	186	70	200	225	266
	APR-SEP	240	265	285	71	305	330	404
McKenzie R nr Vida (1,2)	APR-JUL	525	680	750	77	820	975	977
	APR-SEP	685	855	930	77	1010	1170	1201
Mohawk R nr Springfield	MAR-JUL	56	82	99	74	116	142	134
Oak Grove fk above Power Intake	APR-JUL	74	87	95	73	103	116	130
	APR-SEP	99	113	122	73	131	145	167
North Santiam R at Mehama (1,2)	APR-JUL	340	475	535	73	595	730	732
	APR-SEP	410	545	610	73	675	810	834
South Santiam R at Waterloo (2)	APR-JUL	245	355	425	77	495	605	549
	APR-SEP	270	380	450	77	520	630	587
Scoggins Ck nr Gaston (2)	MAR-JUL	12.7	18.3	22	85	26	31	26
Thomas Ck nr Scio	MAR-JUL	67	85	97	80	109	127	121

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WILLAMETTE BASIN
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
MF Willamette bl NF (1,2)	MAR-MAY	148	395	505	70	615	860	725
	APR-JUL	165	380	480	69	580	795	698
	APR-SEP	200	440	550	69	660	900	798
Willamette R at Salem (1,2)	MAR-MAY	2520	3790	4370	81	4950	6220	5401
	APR-JUL	1830	2990	3520	81	4050	5210	4347
	APR-SEP	2240	3380	3900	81	4420	5560	4804

WILLAMETTE BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BLUE RIVER	85.5	22.2	23.5	31.9
COTTAGE GROVE	29.8	8.4	8.1	10.2
COUGAR	155.2	17.7	28.7	114.3
DETROIT	300.7	79.1	73.8	141.8
DORENA	70.5	18.6	18.7	26.7
FALL CREEK	115.5	23.1	16.5	40.5
FERN RIDGE	109.6	44.0	35.7	45.5
FOSTER	29.7	8.9	1.0	9.6
GREEN PETER	268.2	88.0	85.6	173.2
HILLS CREEK	200.2	35.2	50.2	119.0
LOOKOUT POINT	337.0	37.9	59.8	116.8
TIMOTHY LAKE		NO REPORT		
HENRY HAGG LAKE	53.0	46.9	41.4	45.4

WILLAMETTE BASIN
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
Clackamas	4	34	39
McKenzie	8	43	38
Row River	1	19	16
Santiam	6	27	22
Middle Fork Willamette	7	57	52

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.
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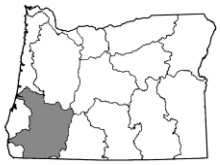
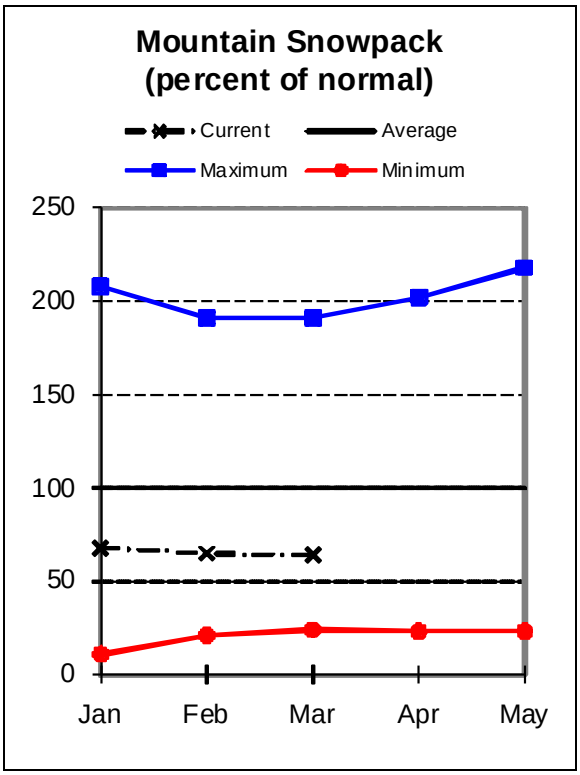
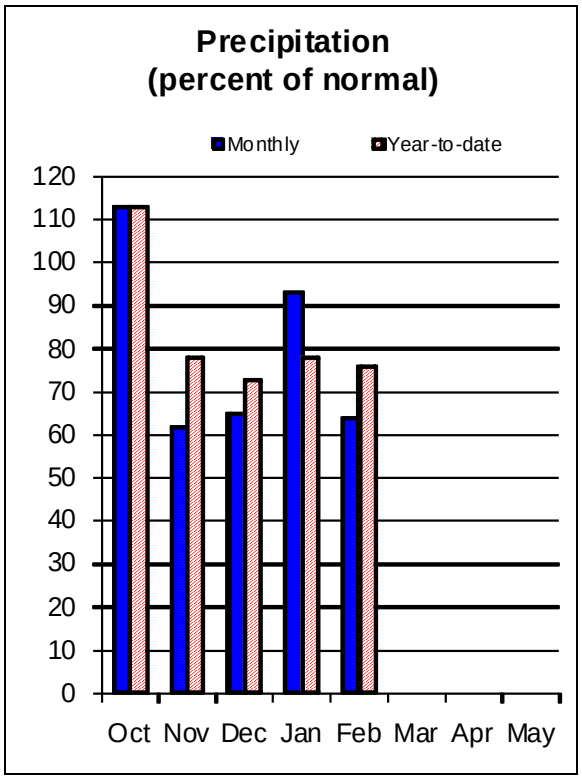


Rogue and Umpqua Basins

March 1, 2010





Water Supply Outlook

February weather conditions did not help to improve water supply conditions in the Rogue and Umpqua basins. February precipitation was only 64 percent of average in the basin. On March 1, total precipitation for water year 2010 was 76 percent of average. The March 1 snowpack in the Rogue and Umpqua basins was 64 percent of average. Snow measurements were collected at 20 snow courses and 12 SNOTEL sites.

The March 1 storage at 5 irrigation reservoirs in the Rogue and Umpqua basin was 92 percent of average, or 63 percent of capacity.

The April through September streamflow forecasts for the Rogue and Umpqua basin range from 63 percent of average for the Rogue at Raygold, to 82 percent of average for the Illinois River at Kerby. Elsewhere in the basin, the Applegate Lake Inflow is forecast to be 72 percent of average for the April through September period.

Streamflow forecasts have declined somewhat at most forecast points since last month. Water users in the Rogue and Umpqua basins can expect well below normal water supplies this coming summer.

For more information contact your local Natural Resources Conservation Service Office:
Roseburg - (541) 673-8316; Medford - (541) 776-4267
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

ROGUE AND UMPQUA BASINS
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Applegate Lake Inflow (2)	MAR-JUL	54	92	118	72	144	182	164
	APR-JUL	39	64	81	72	98	123	112
	MAR-SEP	58	97	123	72	149	188	171
	APR-SEP	43	69	86	72	103	129	119
SF Big Butte Ck nr Butte Falls	APR-JUL	10.4	17.9	23	68	28	36	34
	APR-SEP	15.7	24	30	69	36	44	44
Cow Ck nr Azalea (2)	MAR-JUL	2.2	12.4	19.4	67	26	37	29
	APR-JUL	0.4	6.8	11.1	67	15.4	22	16.5
	APR-SEP	0.8	7.4	11.9	67	16.4	23	17.7
Hyatt Prairie Reservoir Inflow (2)	APR-JUL	0.2	1.5	2.8	58	4.1	6.0	4.8
Illinois R at Kerby	APR-JUL	39	103	147	82	191	255	179
	APR-SEP	44	108	152	82	196	260	186
NF Little Butte Ck nr Lakecreek (2)	APR-JUL	16.2	21	24	76	27	32	32
	APR-SEP	24	30	34	73	38	44	46
Lost Creek Lake Inflow (2)	MAR-JUL	340	425	485	71	545	630	685
	APR-JUL	265	330	375	71	420	485	530
	MAR-SEP	425	520	585	71	650	745	825
	APR-SEP	345	420	470	71	520	595	665
Rogue R at Raygold (2)	APR-JUL	225	365	460	63	555	695	730
	APR-SEP	315	460	560	63	660	805	890
Rogue R at Grants Pass (2)	APR-JUL	265	425	535	72	645	805	740
	APR-SEP	345	520	635	72	750	925	885
Sucker Ck bl Ltl Grayback Ck nr Holl	APR-JUL	17.9	32	42	81	52	66	52
	APR-SEP	21	35	45	80	55	69	56
North Umpqua R at Winchester	APR-JUL	380	535	635	80	735	890	795
	APR-SEP	475	630	735	80	840	995	920
South Umpqua R nr Brockway	APR-JUL	101	225	310	78	395	520	400
	APR-SEP	113	240	325	77	410	535	420
South Umpqua R at Tiller	APR-JUL	63	114	149	77	184	235	193
	APR-SEP	72	123	158	77	193	245	205

For more information contact your local Natural Resources Conservation Service Office:
Roseburg - (541) 673-8316; Medford - (541) 776-4267
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

ROGUE AND UMPQUA BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
APPLEGATE	75.2	16.7	9.3	27.3
EMIGRANT LAKE	39.0	22.4	25.8	28.0
FISH LAKE	8.0	5.0	6.3	5.6
FOURMILE LAKE	16.1	8.6	11.6	9.4
HOWARD PRAIRIE	60.0	39.3	43.5	41.2
HYATT PRAIRIE	16.1	12.5	14.6	11.0
LOST CREEK	315.0	56.0	65.6	218.2

ROGUE AND UMPQUA BASINS
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Applegate	6	113	80
Bear Creek	5	128	82
Little Butte Creek	6	61	58
Illinois	5	67	56
North Umpqua	9	50	35
Rogue River above Grants	21	81	67

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

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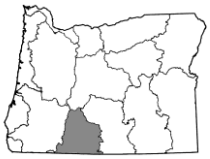
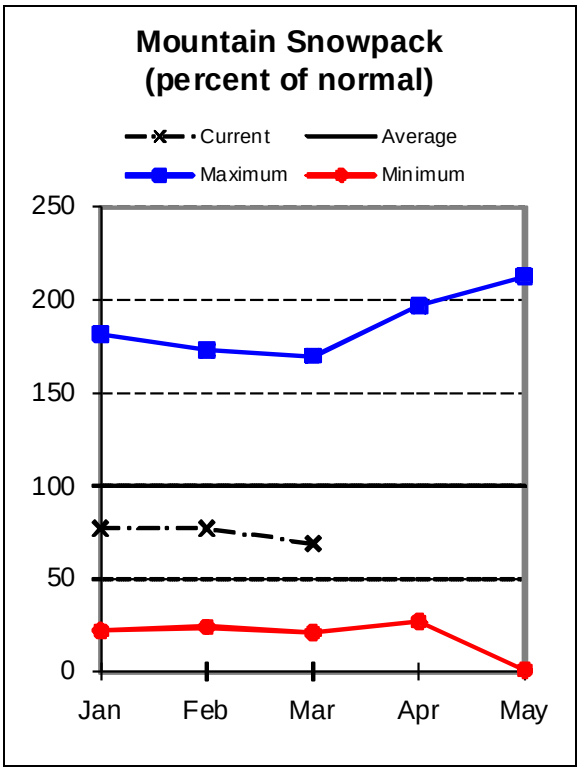
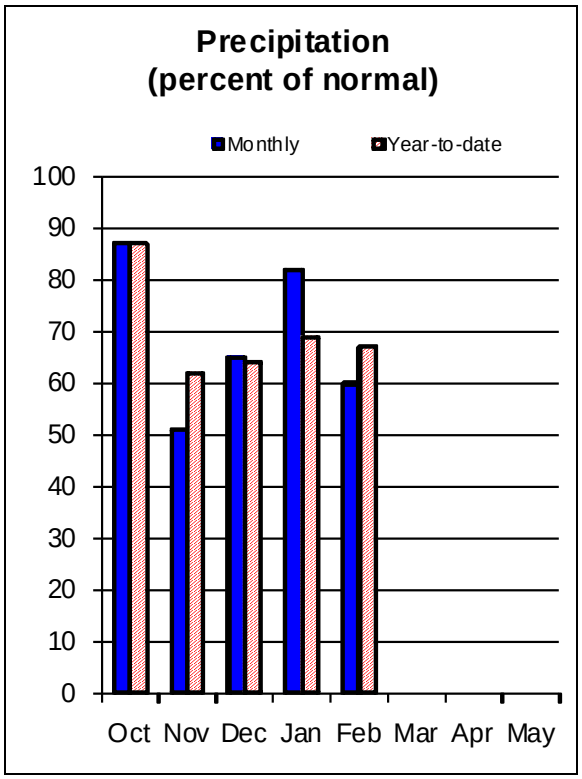


Klamath Basin

March 1, 2010





Water Supply Outlook

Many water users may remember the very low streamflows during the summer of 2001 in the Klamath basin. While water supply conditions in the Klamath basin this year are low, they are still better than 2001 by several measures. As of March 1, water year 2010 precipitation was 67 percent of average, the lowest in the state. The snowpack in the Klamath basin was 69 percent of average on March 1. For comparison, in 2001, the water year precipitation on March 1 was 50 percent of average and the snowpack was 47 percent of average. In the last 30 years, the March 1 Klamath basin snowpack was lower than current conditions in 2005, 2003, 2001, 1994, 1991 and 1981. Snow measurements were collected at 5 snow courses and 15 SNOTEL sites.

The March 1 storage at Upper Klamath Lake, Clear Lake (CA) and Gerber reservoirs was 51 percent of average or 31 percent of capacity. Clear Lake reservoir is especially low this year.

The summer streamflow forecasts for the Klamath basin range have declined significantly since last month. As of March 1, the April through September forecasts range from 28 percent of average for Gerber Reservoir Inflow, to 62 percent of average for the Williamson River below Sprague River near Chiloquin. Elsewhere in the basin, the Upper Klamath Lake Inflow forecast for the same period is 61 percent of average. In 2001, the March 1 streamflow forecast for Upper Klamath Lake inflow was 50 percent of average for the same period. Water users in the Klamath basin can expect water supplies to be greatly below average this coming season.

For more information contact your local Natural Resources Conservation Service Office:
Klamath Falls - (541) 883-6932
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

KLAMATH BASIN
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Clear Lake Inflow (2)	MAR-JUL	1.6	17.6	40	50	62	95	80
	APR-SEP	1.4	11.1	23	48	35	52	48
Gerber Reservoir Inflow (2)	MAR-JUL	0.7	5.1	14.0	38	23	36	37
	APR-SEP	0.2	2.0	5.0	28	8.5	15.0	17.8
Sprague R nr Chiloquin	MAR-JUL	82	136	172	63	210	260	275
	MAR-SEP	98	154	192	63	230	285	305
	APR-SEP	79	121	150	65	179	220	230
Upper Klamath Lake Inflow	MAR-JUL	179	315	380	61	445	580	625
	MAR-SEP	215	360	430	60	500	645	720
	APR-SEP	166	270	315	61	360	465	515
Williamson R bl Sprague R nr Chiloqu	MAR-JUL	165	230	275	63	320	385	440
	MAR-SEP	199	270	315	62	360	430	505
	APR-SEP	151	205	240	62	275	330	385

KLAMATH BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CLEAR LAKE (CALIF)	513.3	65.2	82.4	224.2
GERBER	94.3	29.3	47.3	54.5
UPPER KLAMATH LAKE	523.7	252.2	323.2	402.6

KLAMATH BASIN
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Lost	2	104	68
Sprague	5	112	86
Upper Klamath Lake	7	81	68
Williamson River	5	86	74

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.
The average is computed for the 1971-2000 base period.
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

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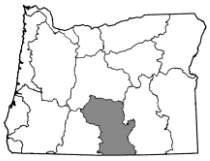
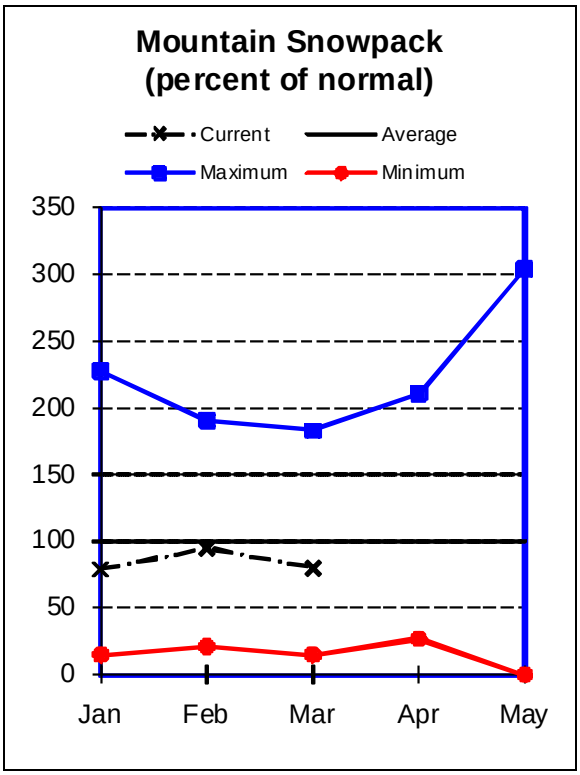
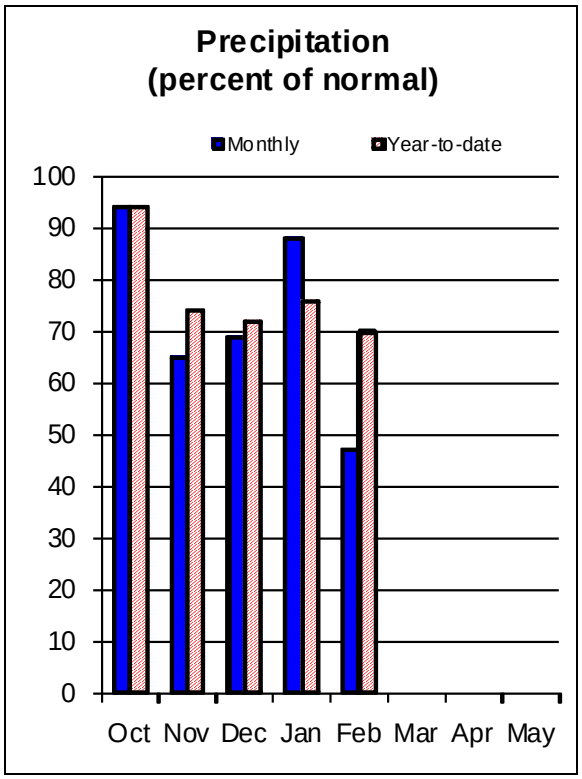


Lake County and Goose Lake

March 1, 2010





Water Supply Outlook

February precipitation in the Lake County and Goose Lake basins was only 47 percent of average, the lowest in the state. Since the beginning of the water year, total precipitation in the basin has been 70 percent of average. On March 1, the snowpack in the Lake County and Goose Lake basins was 80 percent of average. Snow measurements were collected at 1 snow course and 9 SNOTEL sites.

The March 1 storage at Cottonwood and Drews reservoirs was 20 percent of average or 12 percent of capacity.

Summer streamflow forecasts have declined at all forecast points in the basin since the last report. The April through September forecasts range from 45 percent of average for Silver Creek near Silver Lake, to 61 percent of average for the Deep Creek near Adel. Elsewhere in the basin, the Chewaucan near Paisley is forecast to be 58 percent of average for the April through September period. Water users in the Lake County and Goose Lake basins can expect greatly reduced streamflows during the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
Lakeview - (541) 947-2202
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

LAKE COUNTY AND GOOSE LAKE BASINS
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Chewaucan R nr Paisley	MAR-JUL	28	44	55	62	66	82	89
	APR-SEP	21	35	45	58	55	69	78
Deep Ck ab Adel	MAR-JUL	25	42	54	64	66	83	84
	APR-SEP	16.9	32	42	61	52	67	69
Honey Ck nr Plush	MAR-JUL	4.1	8.8	12.0	60	15.2	19.9	20
	APR-SEP	2.2	6.9	10.0	60	13.1	17.8	16.6
Silver Ck nr Silver Lake (2)	MAR-JUL	0.6	4.4	7.0	48	9.6	13.4	14.6
	APR-SEP	0.3	2.6	5.0	45	7.4	11.0	11.2
Twentymile Ck nr Adel	MAR-JUL	0.8	8.1	16.0	57	24	35	28
	APR-SEP	0.2	4.4	10.0	58	15.6	24	17.4

LAKE COUNTY AND GOOSE LAKE BASINS
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COTTONWOOD	8.7	4.0	6.3	3.8
DREWS	63.0	4.4	5.0	37.5

LAKE COUNTY AND GOOSE LAKE BASINS
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Chewaucan River	3	121	74
Deep Creek	1	96	84
Drew Creek	2	106	71
Honey Creek	1	96	84
Silver Creek (Lake Co.)	4	114	88
Twentymile Creek	1	96	84

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.
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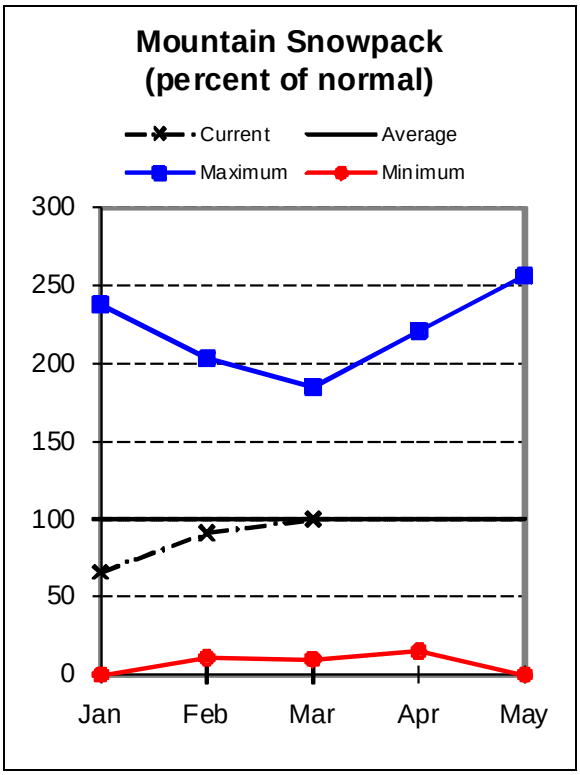
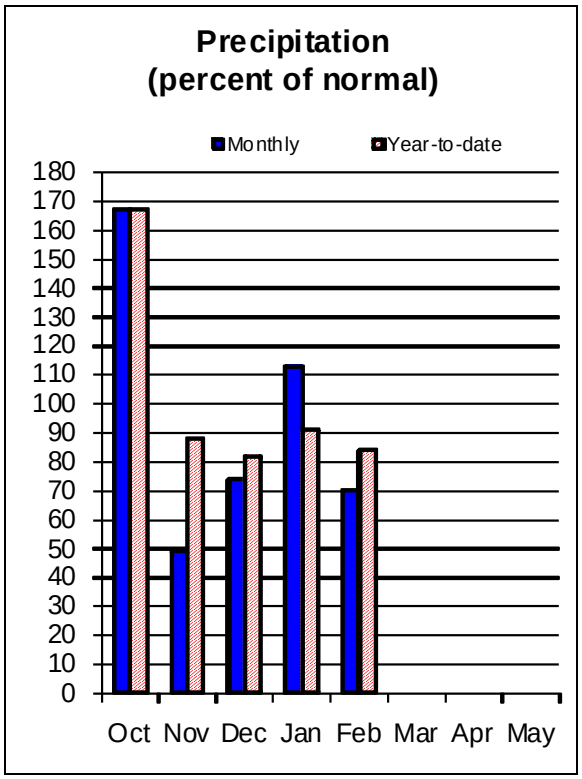
Harney Basin

March 1, 2010





Water Supply Outlook

The Harney basin has experienced a greater number of winter storms than other parts of the Oregon. February precipitation in the Harney basin was 70 percent of average, the highest in the state. As of March 1, total precipitation since the beginning of the water year was 84 percent of average. On March 1, the snowpack in the Harney basin was 100 percent of average. Snow measurements were taken at 7 aerial markers and 9 SNOTEL sites.

Streamflow forecasts remain low in the Harney basin. The April through September streamflow forecast for the Donner Und Blitzen River near Frenchglen is expected to be 80 percent of average. The Silvies River near Burns is expected to be 74 percent of average for the same period. The April through September forecast for Trout Creek near Denio is 53 percent of average. Water users in the Harney basin can expect well below average streamflows during the summer of 2010.

For more information contact your local Natural Resources Conservation Service Office:
Hines - (541) 573-6446
Or visit: http://www.wcc.nrcs.usda.gov/cgibin/bor.pl

HARNEY BASIN
Streamflow Forecasts - March 1, 2010

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Donner Und Blitzen R nr Frenchglen	MAR-JUL	31	48	59	79	70	87	75
	APR-SEP	29	45	56	80	67	83	70
Silvies R nr Burns	MAR-JUL	24	66	95	74	124	166	129
	APR-SEP	7.5	46	73	74	100	139	99
Trout Ck nr Denio	MAR-JUL	0.9	3.9	6.0	54	8.1	11.1	11.1
	APR-SEP	0.3	3.4	5.5	53	7.6	10.7	10.3

HARNEY BASIN
Reservoir Storage (1000 AF) - End of February

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

HARNEY BASIN
Watershed Snowpack Analysis - March 1, 2010

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
Donner und Blitzen River	5	135	95
Silver Creek (Harney Co.)	2	101	87
Silvies River	6	141	97
Trout Creek	6	146	110

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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Recession Forecasts for Oregon

Recession flow forecasts are presented below for key streamflow sites where reliable daily streamflow data are available. The recession flow forecasts use exceedance probabilities in a format similar to the standard water supply forecasts presented in this document. Each forecast provides a range of possible outcomes representing the uncertainty of forecasting models.

The types of forecasts in the table below are:
1) Threshold flow -- Date that the daily streamflow rate falls below the given threshold flow
2) Peak flow -- Maximum daily flow
3) Date of peak flow -- Date of occurrence of maximum daily flow
4) Average daily flow on a given date

OWYHEE AND MALHEUR BASINS					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
Owyhee R nr Rome	2000 cfs	Mar 06	Apr 17	May 29	**May 6**
Owyhee R nr Rome	1000 cfs	Mar 08	Apr 20	Jun 02	**May 18**
Owyhee R nr Rome	500 cfs	Mar 25	May 06	Jun 17	**Jun 2**

UPPER JOHN DAY BASIN					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
John Day R at Service Creek	Average Daily Flow on Aug. 1st	20	205	430	**271**

UPPER DESCHUTES AND CROOKED BASINS					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
Crane Prairie Inflow *	Date of Peak	May 9	May 25	Jun 10	**May 25**
Crane Prairie Inflow	Peak Flow	97	235	375	**403**
Crane Prairie Inflow	Average Daily Flow on Oct. 1st	96	144	192	**269**
Prineville Reservoir Inflow	113 cfs	Apr 11	May 20	Jun 12	**June 3**
Prineville Reservoir Inflow	75 cfs	May 3	May 27	Jun 06	**June 11**
Prineville Reservoir Inflow	50 cfs	May 11	Jun 05	Jul 30	**June 19**
Whychus Creek nr Sisters	100 cfs	Jun 30	Jul 26	Aug 21	**August 16**

*No prediction possible until April 1. Historic values are shown for reference.

ROGUE AND UMPQUA BASINS					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
South Umpqua R nr Brockway *	90 cfs	July 10	Jul 29	Aug 17	**August 8**
South Umpqua R at Tiller	140 cfs	Jun 11	Jul 02	Jul 23	**July 11**
South Umpqua R at Tiller	90 cfs	Jun 30	Jul 22	Aug 12	**August 1**
South Umpqua R at Tiller	60 cfs	Jul 23	Aug 21	Sep 16	**August 28**

*Dates are based on streamflow data adjusted for releases from Galesville Reservoir to reflect natural flow conditions and do not match observed gage data. There is an approximately 20% chance in any given year that the flow will not recede below 90 cfs; the dates given here are for the event that the flow does recede below 90 cfs.

LAKE COUNTY AND GOOSE LAKE BASINS					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
Deep Ck ab Adel	100 cfs	May 15	Jun 06	Jun 28	**June 17**
Honey Ck nr Plush	100 cfs	Apr 11	May 14	Jun 16	**May 16**
Honey Ck nr Plush	50 cfs	Apr 29	May 29	Jun 28	**June 4**
Twentymile Ck nr Adel	50 cfs	Apr 10	May 06	Jun 01	**May 30**
Twentymile Ck nr Adel	10 cfs	Jun 02	Jun 25	Jul 18	**July 7**

HARNEY BASIN					
FORECAST POINT	*FORECAST THRESHOLD*	*FORECAST VALUE ---------- CHANCE OF EXCEEDING ----------*			*LONG-TERM AVERAGE VALUE*
		90%	*50%*	*10%*	
Silvies R nr Burns	400 cfs	Apr 10	May 09	Jun 07	**May 21**
	200 cfs	Apr 21	May 20	Jun 18	**June 2**
	100 cfs	May 01	Jun 02	Jul 04	**June 13**
	50 cfs	May 21	Jun 25	Jul 30	**July 3**
Donner Und Blitzen R nr Frenchglen	200 cfs	May 22	Jun 13	Jul 05	**June 20**
Donner Und Blitzen R nr Frenchglen	100 cfs	Jun 13	Jul 03	Jul 23	**July 9**

Summary of Snow Course Data

March 2010

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon						
ALTHOUSE #2	4530	3/02/10	0	.0	3.0	4.7
ALTHOUSE #3	5000	3/02/10	15	5.7	8.0	13.2
ANEROID LAKE SNOTEL	7400	3/01/10	46	12.2	12.4	21.0
ANNIE SPRING SNOTEL	6010	3/01/10	80	27.4	24.9	33.5
ANTHONY LAKE (REV)	7130	3/01/10	48	16.0	18.9	--
ARBUCKLE MTN SNOTEL	5770	3/01/10	45	13.2	12.7	18.5
BARNEY CREEK (NEW)	5840	3/02/10	31	8.9	7.7	--
BEAVER DAM CREEK	5100	2/24/10	19	7.6	12.9	11.4
BEAVER RES. SNOTEL	5150	3/01/10	28	6.7	6.3	8.6
BIG RED MTN SNOTEL	6050	3/01/10	55	18.7	15.7	22.5
BIGELOW CAMP SNOTEL	5130	3/01/10	12	4.9	12.3	12.7
BILLIE CK DVD SNOTEL	5280	3/01/10	34	12.9	20.1	21.4
BLAZED ALDER SNOTEL	3650	3/01/10	24	9.4	28.7	30.1
BLUE MTN SPGS SNOTEL	5870	3/01/10	38	12.8	11.0	15.7
BOULDER CREEK AM	5690	2/25/10	16	5.0	2.8	3.8
BOURNE SNOTEL	5850	3/01/10	41	12.2	11.7	16.6
BOWMAN SPRNGS SNOTEL	4530	3/01/10	14	4.4	8.5	9.1
BUCK PASTURE AM	5700	2/25/10	10	3.2	4.2	2.4
BUCKSKIN LAKE AM	5200	2/25/10	0	.0	.2	.5
BULLY CREEK AM	5300	2/25/10	18	5.6	1.4	2.2
CALIBAN ALT	6500	3/01/10	64	21.4	15.2	25.2
CALL MEADOWS AM	5340	2/25/10	24	7.4	3.2	4.2
CAMAS CREEK #3	5850	2/24/10	36	10.0	10.4	11.9
CASCADE SUM. SNOTEL	5100	3/01/10	56	19.4	23.9	27.2
CHEMULT ALT SNOTEL	4850	3/01/10	18	5.8	7.3	8.1
CLACKAMAS LK. SNOTEL	3400	3/01/10	10	4.0	12.2	12.3
CLEAR LAKE SNOTEL	3810	3/01/10	11	3.0	10.4	13.2
COLD SPRINGS SNOTEL	5940	3/01/10	49	18.2	25.5	27.0
COUNTY LINE SNOTEL	4830	3/01/10	5	1.9	3.8	4.6
CRAZYMAN FLAT SNOTEL	6180	3/01/10	40	11.6	8.2	15.7
DALY LAKE SNOTEL	3690	3/01/10	0	.0	13.9	15.0
DEADHORSE GRADE	3700	2/24/10	0	.0	5.4	8.5
DEADWOOD JUNCTION	4600	2/24/10	14	5.0	7.0	6.9
DERR	5670	2/23/10	28	9.2	8.5	9.7
DERR SNOTEL	5850	3/01/10	43	12.0	10.1	13.7
DIAMOND LAKE SNOTEL	5280	3/01/10	17	8.4	16.8	15.0
DOOLEY MOUNTAIN	5430	3/02/10	34	11.2	8.1	7.9
EAST EAGLE	4400	2/28/10	58	9.1	16.6	23.3
EILERTSON SNOTEL	5510	3/01/10	29	9.0	8.0	9.6
ELDORADO PASS	4600	3/02/10	17	6.2	1.6	3.4
EMIGRANT SPGS SNOTEL	3800	3/01/10	4	2.3	7.5	5.7
FISH CREEK SNOTEL	7660	3/01/10	69	20.7	15.4	23.9
FISH LK. SNOTEL	4660	3/01/10	11	4.9	10.9	11.1
FLAG PRAIRIE AM	4750	2/25/10	22	6.8	4.1	4.5
FOURMILE LAKE SNOTEL	5970	3/01/10	51	15.8	23.3	27.1
GERBER RES SNOTEL	4890	3/01/10	0	.0	1.0	1.4
GOLD CENTER SNOTEL	5410	3/01/10	25	8.3	8.1	10.3
GOVT CORRALS AM	7450	2/25/10	40	12.4	7.6	--
GRAYBACK PEAK	6000	3/01/10	56	17.5	18.8	17.2
GREENPOINT SNOTEL	3310	3/01/10	23	8.7	16.8	17.8
HIGH PRAIRIE	6100	2/24/10	89	32.6	29.9	41.1
HIGH RIDGE SNOTEL	4920	3/01/10	46	15.3	21.0	21.2
HOGG PASS SNOTEL	4790	3/01/10	48	16.1	19.9	34.0
HOLLAND MDWS SNOTEL	4930	3/01/10	10	3.4	17.6	21.0
HOWARD PRAIRIE	4500	2/24/10	11	3.3	6.9	7.3
HUNGRY FLAT	4400	3/01/10	1	.2	.8	3.4
IRISH-TAYLOR SNOTEL	5540	3/01/10	65	20.4	27.3	30.7
JUMP OFF JOE SNOTEL	3520	3/01/10	0	.0	11.8	11.4
KING MTN #1	4500	2/25/10	7	1.8	4.5	6.7
KING MTN #2 SNOTEL	4340	3/01/10	0	.0	2.4	3.8
KING MTN #3	3650	2/25/10	0	.0	.0	1.0
KING MTN #4	3050	2/25/10	0	.0	.0	.1

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon (continued)						
LAKE CK R.S. SNOTEL	5240	3/01/10	34	9.5	6.3	11.6
LITTLE ALPS	6200	3/01/10	29	7.6	9.7	11.1
LITTLE ANTONE (ALT)	5000	3/01/10	25	8.0	8.7	8.4
LITTLE MEADOW SNOTEL	4020	3/01/10	19	8.5	22.3	22.8
LOOKOUT BUTTE AM	5650	2/25/10	0	.0	.7	.3
LOUSE CANYON AM	6440	2/25/10	21	6.5	4.6	5.8
LUCKY STRIKE SNOTEL	4970	3/01/10	18	5.7	6.8	9.3
MADISON BUTTE SNOTEL	5150	3/01/10	8	4.1	4.3	4.8
MARION FORKS SNOTEL	2590	3/01/10	0	.0	7.2	10.2
MARKS CREEK	4540	2/23/10	6	1.8	1.4	3.2
MARY'S PEAK REV	3620	3/01/10	0	.0	6.9	5.8
MCKENZIE SNOTEL	4770	3/01/10	48	19.7	40.1	37.5
MEACHAM	4300	2/26/10	24	8.0	8.8	8.5
MILL CREEK MDW	4400	2/24/10	24	6.4	18.1	10.6
MILLER WOODS SNOTEL	420	3/01/10	0	.0	.0	--
MOSS SPRINGS SNOTEL	5760	3/01/10	54	17.0	19.4	22.2
MT ASHLAND SWBK.	6400	3/01/10	63	21.2	15.2	27.2
MT HOOD	5370	2/26/10	89	35.5	--	53.9
MT HOOD TEST SNOTEL	5370	3/01/10	84	32.4	41.9	48.4
MT HOWARD SNOTEL	7910	3/01/10	29	11.3	13.0	12.8
MUD RIDGE SNOTEL	4070	3/01/10	38	13.6	30.5	21.9
NEW CRESCENT SNOTEL	4910	3/01/10	32	8.4	11.7	11.0
NEW DUTCHMAN #3	6320	3/01/10	85	29.9	38.2	46.1
NORTH FK RES SNOTEL	3060	3/01/10	4	2.4	22.6	16.4
NORTH UMPQUA	4220	3/03/10	5	1.4	--	10.7
OCHOCO MEADOWS	5200	2/23/10	31	10.9	7.2	9.6
OCHOCO MEADOW SNOTEL	5430	3/01/10	34	6.2	9.0	9.3
OREGON CANYON AM	6950	2/25/10	25	7.8	5.5	5.5
PAGE MTN	4050	3/02/10	0	.0	.0	2.1
PARK H.Q. REV	6550	2/25/10	106	34.6	42.6	48.0
PEAVINE RIDGE SNOTEL	3420	3/01/10	5	2.8	15.3	13.2
PUEBLO SUMMIT AM	6800	2/25/10	19	5.9	3.1	2.5
QUARTZ MTN SNOTEL	5720	3/01/10	1	.8	1.0	2.3
R.R. OVERPASS SNOTEL	2680	3/01/10	0	.0	.0	.1
RED BUTTE #1	4560	2/24/10	2	.7	10.0	10.2
RED BUTTE #2	4000	2/24/10	0	.0	3.0	5.3
RED BUTTE #3	3500	2/24/10	0	.0	.0	2.3
RED BUTTE #4	3000	2/24/10	0	.0	.0	.8
RED HILL SNOTEL	4410	3/01/10	61	26.1	45.1	41.4
ROARING RIVER SNOTEL	4950	3/01/10	34	12.1	24.8	25.5
ROCK SPRINGS SNOTEL	5290	3/01/10	25	7.7	1.9	5.3
SADDLE MTN SNOTEL	3110	3/01/10	0	.0	4.7	6.2
SALT CK FALLS SNOTEL	4220	3/01/10	14	2.7	17.8	16.5
SANTIAM JCT. SNOTEL	3740	3/01/10	0	.0	14.5	17.8
SCHNEIDER MDW SNOTEL	5400	3/01/10	74	22.7	17.2	27.6
SEINE CREEK SNOTEL	2060	3/01/10	0	.1	.2	2.9
SEVENMILE MARSH SNTL	5700	3/01/10	60	18.3	21.6	26.7
SILVER BURN	3720	2/25/10	12	4.5	12.2	10.5
SILVER CREEK SNOTEL	5740	3/01/10	28	11.7	9.9	9.8
SILVIES SNOTEL	6990	3/01/10	38	12.2	8.7	15.6
SISKIYOU SUMMIT REV	4630	3/01/10	11	4.1	6.8	5.3
SKI BOWL ROAD	6000	3/01/10	53	18.0	12.5	22.0
SNOW MTN SNOTEL	6220	3/01/10	32	7.6	6.2	10.3
SF BULL RUN SNOTEL	2690	3/01/10	0	.0	7.7	2.8
STARR RIDGE SNOTEL	5250	3/01/10	20	6.5	7.8	6.0
STRAWBERRY SNOTEL	5770	3/01/10	14	4.7	4.2	5.5
SUMMER RIM SNOTEL	7080	3/01/10	38	12.1	11.1	15.2
SUMMIT LAKE SNOTEL	5610	3/01/10	67	21.4	27.1	31.5
SUN PASS SNOTEL	5400	3/01/10	52	18.1	17.4	--
SWAN LAKE MTN SNOTEL	6830	3/01/10	53	17.9	16.5	--
TANGENT	5400	3/01/10	48	16.0	14.0	19.9
TAYLOR BUTTE SNOTEL	5030	3/01/10	15	5.8	7.0	6.0
TAYLOR GREEN SNOTEL	5740	3/01/10	48	16.8	15.4	18.9
THREE CK MEAD SNOTEL	5690	3/01/10	43	13.5	12.5	16.9
TIPTON SNOTEL	5150	3/01/10	35	10.4	8.5	12.8
TOKETEE AIRSTRIP SN	3240	3/01/10	0	.0	4.0	5.8
TOLLGATE	5070	2/26/10	55	17.6	22.6	24.5
TRAP CREEK	3800	3/03/10	0	.0	--	9.1
TROUT CREEK AM	7800	2/25/10	40	12.4	8.4	9.7

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 71-00
Oregon (continued)						
V LAKE AM	6600	2/25/10	34	10.9	6.3	7.3
WOLF CREEK SNOTEL	5630	3/01/10	38	11.2	12.5	14.7
California						
ADIN MOUNTAIN	6350	3/01/10	32	10.3	10.4	11.7
ADIN MTN SNOTEL	6190	3/01/10	31	11.6	11.3	12.2
CEDAR PASS SNOTEL	7030	3/01/10	38	10.3	13.2	15.6
CROWDER FLAT SNOTEL	5170	3/01/10	9	4.7	2.9	4.7
DISMAL SWAMP SNOTEL	7360	3/01/10	56	18.6	18.0	23.7
Idaho						
BATTLE CREEK AM	5720	2/25/10	18	5.2	3.7	3.9
BULL BASIN AM	5460	2/25/10	12	3.5	3.3	1.6
MUD FLAT SNOTEL	5730	3/01/10	28	8.2	6.2	6.8
RED CANYON AM	6650	2/25/10	36	11.5	7.1	7.3
SILVER CITY	6400	2/25/10	55	17.2	14.4	14.9
SOUTH MTN SNOTEL	6500	3/01/10	44	14.0	11.1	17.1
VAUGHT RANCH AM	5830	2/25/10	20	5.8	6.5	4.7
Nevada						
BEAR CREEK SNOTEL	7800	3/01/10	34	8.3	16.8	17.1
BIG BEND SNOTEL	6700	3/01/10	27	7.2	9.5	8.6
BUCKSKIN,L SNOTEL	6700	3/01/10	30	7.6	7.3	8.5
COLUMBIA BASIN AM	6650	2/25/10	39	10.6	8.2	8.8
DISASTER PEAK SNOTEL	6500	3/01/10	21	6.6	6.4	9.7
FAWN CREEK SNOTEL	7050	3/01/10	46	11.6	12.5	14.4
FRY CANYON	6700	2/24/10	30	8.0	9.3	7.3
GOLD CREEK	6600	2/24/10	23	6.4	7.7	5.6
GRANITE PEAK SNOTEL	7800	3/01/10	42	10.7	10.5	19.7
JACK CREEK, U SNOTEL	7280	3/01/10	42	10.7	11.6	15.7
LAMANCE CREEK SNOTEL	6000	3/01/10	29	8.5	6.7	12.6
LAUREL DRAW SNOTEL	6700	3/01/10	34	8.9	10.5	9.2
MERRIT MOUNTAIN AM	7000	2/25/10	39	10.5	8.2	6.6
MIDAS (d)	7200	2/25/10	18	4.9	5.1	3.7
QUINN RIDGE AM	6300	2/25/10	0	.0	2.0	2.1
SEVENTYSIX CK SNOTEL	7100	3/01/10	30	7.0	7.5	10.9
STAG MOUNTAIN AM	7700	2/25/10	11	3.0	3.7	5.3
TAYLOR CANYON SNOTEL	6200	3/01/10	12	4.1	7.0	5.3
TOE JAM AM AM	7700	2/25/10	24	6.5	8.2	9.4
TREMEWAN RANCH	5700	2/24/10	12	3.1	4.0	1.9

(d) denotes discontinued site.

Basin Outlook Reports; How Forecasts Are Made

And Federal – State – Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

USDA, Natural Resources Conservation Service
Snow Survey Office
1201 NE Lloyd; Suite 900
Portland, OR 97232

Phone: (503) 414-3270 **Web site: *http://www.or.nrcs.usda.gov/snow/index.html***

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snowcourses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Interpreting Water Supply Forecasts

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

90 Percent Chance of Exceedance Forecast. There is a 90 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 10 percent chance that the actual streamflow volume will be less than this forecast value.

70 Percent Chance of Exceedance Forecast. There is a 70 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 30 percent chance that the actual streamflow volume will be less than this forecast value.

50 Percent Chance of Exceedance Forecast. There is a 50 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 50 percent chance that the actual streamflow volume will be less than this forecast value. Generally, this forecast is the middle of the range of possible streamflow volumes that can be produced given current conditions.

30 Percent Chance of Exceedance Forecast. There is a 30 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 70 percent chance that the actual streamflow volume will be less than this forecast value.

10 Percent Chance of Exceedance Forecast. There is a 10 percent chance that the actual streamflow volume will exceed this forecast value, and there is a 90 percent chance that the actual streamflow volume will be less than this forecast value.

*Note: There is still a 20 percent chance that actual streamflow volumes will fall either below the 90 percent exceedance forecast or above the 10 percent exceedance forecast.

These forecasts represent the uncertainty inherent in making streamflow predictions. This uncertainty may include sources such as: unknown future weather conditions, uncertainties associated with the various prediction methodologies, and the spatial coverage of the data network in a given basin.

30-Year Average. The 30-year average streamflow for each forecast period is provided for comparison. The average is based on data from 1971-2000. The % AVG. column compares the 50% chance of exceedance forecast to the 30-year average streamflow; values above 100% denote when the 50% chance of exceedance forecast would be greater than the 30-year average streamflow.

AF - Acre-feet, forecasted volume of water are typically in thousands of acre-feet.

These forecasts are given to users to help make risk-based decisions. Users can select the forecast corresponding to the level of risk they are willing to accept in order to minimize the negative impacts of having more or less water than planned for.

To Decrease the Chance of Having Less Water than Planned for: A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive less than this amount). To reduce the risk of having less water than planned for, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded such as the 90 or 70 percent exceedance forecasts.

To Decrease the Chance of Having More Water than Planned for: A user might determine that making decisions based on a 50 percent chance of exceedance forecast is too much risk to take (there is still a 50% chance that the user will receive more than this amount). To reduce the risk of having more water than planned for, users can base their operational decisions on one of the forecasts with a lesser chance of being exceeded such as the 30 or 10 percent exceedance forecasts.

Using the forecasts - an Example

Using the 50 Percent Exceedance Forecast. Using the example forecasts shown below, there is a 50% chance that actual streamflow volume at the Boise River near Twin Springs will be less than 685 KAF between April 1 and July 31. There is also a 50% chance that actual streamflow volume will be greater than 685 KAF.

Using the 90 and 70 Percent Exceedance Forecasts. If an unexpected shortage of water could cause problems (such as irrigated agriculture), users might want to plan on receiving 610 KAF (from the 70 percent exceedance forecast). There is a 30% chance of receiving *less* than 610 KAF.

Alternatively, if users determine the risk of using the 70 percent exceedance forecast is too great, then they might plan on receiving 443 KAF (from the **90** percent exceedance forecast). There is 10% chance of receiving less than 443 KAF.

Using the 30 or 10 Percent Exceedance Forecasts. If an unexpected excess of water could cause problems (such as operating a flood control reservoir), users might plan on receiving 760 KAF (from the 30 percent exceedance forecast). There is a 30% chance of receiving *more* than 760 KAF.

Alternatively, if users determine the risk of using the 30 percent exceedance forecast is too great, then they might plan on receiving 927 KAF (from the 10 percent exceedance forecast). There is a 10% chance of receiving more than 927 KAF.

Users could also choose a volume in between any of these values to reflect their desired risk level.

OWYHEE AND MALHEUR BASINS

Streamflow Forecasts - March 1, 2006

		<<====== Drier ====== Future Conditions ======= Wetter =====>>				
		========== Chance Of Exceeding * ==========				
Forecast Point	Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
MALHEUR near Drewsey	FEB-JUL	148	184	210	165	238	282	127
	APR-SEP	87	110	128	168	147	177	76
NF MALHEUR at Beulah	FEB-JUL	108	127	141	157	156	178	90
OWYHEE RESV INFLOW (2)	FEB-JUL	602	792	935	134	1090	1340	700
	APR-SEP	341	473	575	134	687	869	430

** 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.*

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